February 17, 2000

Mr. Rex Bolton
Chairman, DoD Enterprise Software Initiative Working Group
1225 Jefferson Davis Highway, Suite 910
Arlington, Virginia 22202

Dear Mr. Bolton:

In accordance with task DASW01-96-0067 and Acquisition Solutions' Management Plan, the Task 7 high level *Plan for Implementing and Managing Enterprise Software Agreements within DoD* is attached for your review and comment.

This high level, plan presents recommendations the Department can follow to help maximize the benefits of acquiring and managing software at the enterprise level. Based on a vision of the optimum desired end-state, the plan provides advice and guidance on how to get from the "as is" to the "to be." All comments from the working group have been incorporated into this final version.

Task 7 represents our final deliverable under this task. We have enjoyed working with you on this Task and take great pleasure in your successes and in the recognition your team so justly deserves. If you have any questions, or if I can provide additional information, please do not hesitate to contact me at 301-261-9849. Thank you for the opportunity to work on this exciting initiative.

Sincerely,

Chip Mather
Senior Vice President
Acquisition Solutions, Inc.

Enclosure: Task 7 *Plan for Implementing and Managing Enterprise Software Agreements within DoD*

PLAN FOR IMPLEMENTING AND MANAGING ENTERPRISE SOFTWARE AGREEMENTS WITHIN DOD

HIGH LEVEL IMPLEMENTATION PLAN

STRATEGIC BUSINESS PROCESS REENGINEERING INITIATIVE
DASW01-96-0067, TASK 7
FEBRUARY 17, 2000

PLAN FOR IMPLEMENTING AND MANAGING ENTERPRISE SOFTWARE AGREEMENTS WITHIN DOD

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PLAN FOR IMPLEMENTING AND MANAGING ENTERPRISE SOFTWARE AGREEMENTS WITHIN DOD

FOREWORD

The Deputy Assistant Secretary of Defense (Deputy Chief Information Officer and Year 2000) tasked the Directorate of Information Technology Acquisition and Investment to develop, lead, oversee, and maintain a Department-wide Enterprise Software Initiative (ESI). The Enterprise Software Initiative is a joint project with support from DoD components. The program's mission is to develop and implement a DoD enterprise process to identify, acquire, distribute and manage Enterprise Software.

The main problem identified with procuring non-developmental software for the DoD is that software – including price and expense of acquisition, distribution, training, maintenance, and support – costs too much. It was understood that Enterprise Software Agreements could provide a method for DoD to leverage its buying power to acquire software and meet its mission at a lower cost. Additionally, by implementing enterprise asset management tracking, the Department could ensure that it As such, a major objective of this program is to reduce dramatically the cost of commercially available software to the Department.

As part of this initiative, the Directorate of Information Technology Acquisition and Investment commissioned two studies: (1) to identify best practices for enterprise software agreements, and (2) to provide guidance and advice on implementing these best practices within DoD. This report, "*Plan for Implementing and Managing Enterprise Software Agreements within DoD*" is the second deliverable under this effort. The Department welcomes comments and/or recommendations for additional best practices and to improve the acquisition, distribution, and management of the Enterprise Software Initiative. Comments and suggestions should be sent to:

Mr. Rex Bolton
Chairman, DoD Enterprise Software Initiative Working Group
1225 Jefferson Davis Highway, Suite 910
Arlington, VA 22202
BoltonR@osd.pentagon.mil

The Department appreciates the effort of all parties involved in improving DoD's acquisition and management of enterprise software. The best practices identified in the first report confirm that DoD is on the right track. Initial results from "quick hit" agreements prove the tremendous savings that can result from acquiring and managing commercial software at the enterprise level. As identified in this second report, we need to take the next steps to formalize the program to ensure we receive the maximum benefits of this high payback initiative. With your assistance, I look forward to continued successes from this important program.

Mr. Paul R. Brubaker
Acting Deputy Chief Information Officer

PLAN FOR IMPLEMENTING AND MANAGING ENTERPRISE SOFTWARE AGREEMENTS WITHIN DOD

1. EXECUTIVE SUMMARY

The Department of Defense (DoD) has taken the lead to develop, oversee, and maintain a Department-wide Enterprise Software Initiative (ESI). The program's mission is to develop and implement a DoD enterprise process to identify, acquire, distribute, and manage Enterprise Software. In support of this broad initiative, Acquisition Solutions, Inc., was commissioned to prepare two reports. The first report, "Best Practices for Enterprise Software Agreements Within DoD and the Corporate World," identified twenty-three (23) best practices to assist the Department to:

- Reduce Acquisition and Support Costs, including Software Asset Management,
- Provide a Choice of Standards-Compliant Software,
- Fund Enterprise Software Agreements, and
- Employ Techniques to Achieve Corporate Buy-In.

These best practices, if successfully implemented, would allow the Department to take maximum advantage of managing software acquisition and distribution at the enterprise level. The report is available at the following link:

Best Practices Report

The second study, presented in this report, provides recommendations that would describe, at a high level, the steps required to implement the identified best practices. By implementing "smart buying" practices for commercially available software, DoD will *leverage its immense buying power and realize significant cost savings*. Smart buying can be best categorized as leveraging buying power to its best advantage. Smart buying practices include:

- Aggregating requirements to maximize buying power,
- Understanding and leveraging market forces,
- Tailoring agreements to complement the supplier's objectives,
- Standardizing terms and conditions (to allow better and more accurate benchmark comparisons), and
- Maintaining competition throughout the agreement.

Through the application of smart buying practices, discounts of 70 to 90 percent off software's list price were achieved by industry without any up-front funding required. Based on the sheer size and magnitude of requirements in the Department, DoD should realize significant savings — perhaps in the hundreds of millions of dollars during the lifespan of this program. Additionally, through the control and inventory of enterprise software, the Department will no longer over-license itself for commercially available software, and will maintain positive control of its software inventory, providing additional savings to the Department.

The Enterprise Software Initiative represents a major change in DoD's software buying practices and requires a well planned approach to its implementation. The recommended implementation approach for DoD's Enterprise Software Initiative is a *phased approach* with *continued incremental success, savings and improvements.* The implementation process is iterative and requires continual benchmarking, tuning and enhancement. DoD should pilot and benchmark agreements with key software suppliers in product categories with identified high payback to the organization.

The focus of ESI's initial implementation should be on five key areas:

1. **THE TEAM**: Building the cross-department team of experienced and skilled staff to identify, acquire, distribute and manage enterprise software.

2. **THE POLICY**: Issuing and enforcing a clear and unambiguous policy of mandatory consideration for use of the Enterprise Software Agreements within all DoD Components and contractors.

3. **THE ENTERPRISE IT CORRIDOR**: Designing and deploying an effective system infrastructure focused on ordering, delivering, tracking (asset management), billing and paying for enterprise licenses.

4. **THE ACQUISITION STRATEGY**: Establishing a sound acquisition strategy and the dedicated, expert staff required to negotiate and maintain Enterprise Software Agreements with industry's best discounts and terms.

5. **THE FEEDBACK AND COMMUNICATION CHANNEL**: Creating a mechanism for feedback and communication focused on continuous improvement of the Enterprise Software Initiative.

The Enterprise Software Initiative should be supported as a continually evolving program. The ESI team must be *vigilant in its industry benchmarking and continuous improvement* of the approach and the content of the program. Relationships with industry and other government agencies should be used to continually monitor the market and software deals. No organization has the aggregated volume of DoD, therefore no one should receive a more favorable agreement.

Negotiating the best industry discount will result in significant cost savings to the Department. However, this is only part of the equation. *Gaining the support of DoD's diverse user population and software suppliers is a monumental task.* Without the "buy in" from these parties, the ESI will fail. Traditionally, DoD has been unable to direct mandatory service compliance. The full support of policy enforcement at the service level is required. Additionally, the Enterprise Software Initiative needs to be implemented in a manner that builds on small successes to prove its ease, benefit and savings to DoD users. ESI represents a significant change to DoD's business practices and should entice participation from the DoD community through a streamlined, easy-to-use process that delivers significant benefits to its customers.

The ESI also needs to gain the confidence of its software suppliers in its ability to control and manage its software licenses across the Department. *Deploying the automated systems*

required to effectively and easily track and allocate enterprise licenses is a priority for the program. Not only will this build the confidence of the software suppliers, it will also present a user-friendly face to all DoD Components and contractors.

The Department is on the right track. The initial success of ESI's "Quick Hit List" is just the beginning. With continued support and implementation of industry best practices, DoD will realize immense savings and enterprise-wide management efficiencies. This report presents guidance and advice on the implementation approach for the Enterprise Software Initiative in five key areas: The Team, The Policy, The Enterprise IT Corridor, The Acquisition Strategy, and The Feedback and Communication Channel. A summary implementation checklist is as follows:

Checklist	Task Description
✓	Select, cultivate and support the ESI team, • Steering Committee • Working Group • IT Corridor Executive Agent • Acquisition Centers • User Community • Software Vendor
✓	Issue a clear and unambiguous Guidance and Policy Memorandum directing mandatory consideration of the DoD Enterprise Software Agreements,
✓	Enforce the policy with a waiver process to track and understand DoD use of the Enterprise Software Agreements,
✓	Establish a fee structure to reimburse costs with ESI Acquisition Centers,
✓	Deploy automated, friendly systems to support ESI transactions, • Ordering System • Delivery System • Inventory/Asset Tracking System • Billing System • Payment System
✓	Select and support Acquisition Centers; including expert contract and software product management teams,
✓	Continually benchmark all agreements against government and industry to clearly understand the target,
✓	Take a firm negotiation stance to meet the benchmarked target,
✓	Maintain competition throughout the contract life,
✓	Excel at post-award management, • ESI marketing to encourage use and understanding of the enterprise agreements • Friendly and accurate software accounting and distribution systems
✓	Monitor program success and make improvements based on a continual feedback and communication channel.
✓	To extent practicable, inventory existing licenses to determine current coverage.

PLAN FOR IMPLEMENTING AND MANAGING ENTERPRISE SOFTWARE AGREEMENTS WITHIN DOD

2. THE DESIRED END-STATE

One technique that is useful in developing an implementation plan is to work backwards from the end result … to envision the desired end state and develop the plan to get the organization from the "as is" to the "to be."

The Goal / The Future:

The desired end-state is that the Enterprise Software Initiative (ESI) identifies and provides a choice of the most popular, standards-compliant, commercially available software for all DoD Components and contractors. This software is readily available at the best industry discounted price and is delivered with the most favorable terms and conditions offered by the software vendor. The Agreement includes current commercial releases, all software required to run the programs (e.g., utilities), and the best terms, conditions, support and prices prevalent in the commercial marketplace. Since no organization matches DoD's aggregated buying power, no one receives a better price than the Department.

The Enterprise Software Agreements (ESAs) are Volume Purchase Agreements negotiated by experts in software acquisition. Volume Purchase Agreements are the preferred method for the enterprise agreements because they require *no up-front funding or precise estimated quantity commitments*. Pricing is provided based on estimated DoD volume, and license and vendor payments are tracked accordingly. The ESAs are focused only on program license and maintenance. They are kept simple for easy implementation and meaningful product comparisons. To the extent possible, ESAs contain standard terms and conditions. This enables an "apple to apple" comparison by the user community.

The ESI centrally identifies, acquires, distributes and manages the agreements for *mandatory consideration* by all agencies within all DoD Components and contractors. Enterprise agreements are constantly benchmarked to compare DoD agreements against the best industry and Government examples. Benchmarks are used to set a standard for negotiation objectives and as a reference point to judge program improvement and success.

All DoD Components and contractors are ESI supporters and actively seek to use the enterprise agreements for procuring their software. In addition to DoD policy and guidance mandating compliance, the ESAs are easy to use and generate budget savings for use on other agency initiatives. The ESI "user experience" is geared towards a simple point-and-click interface, making it friendly and painless for customers to conduct business with ESI. The system also allows an easy comparison of products between suppliers, maintaining a constant level of competition between agreements.

Licenses are inventoried and accounted for as assets, allowing for the reallocation of unused licenses. The Department no longer buys new licenses when it already owns one and has a "Positive Ownership Method" in place for license compliance. In the near term, managers will have an answer to the question; how many licenses do we already own? It is estimated

that for popular software licenses such as Microsoft, and Oracle, that the Department may already own a sufficient number to satisfy current requirements

When the user requests the delivery of software, an order generation system charges the authorized unit for the software and the DoD software inventory is updated with all pertinent software and customer data. Acquired software is downloaded directly into the user's machine from the DoD Mall. Where download is not possible, the overnight delivery of a CD is initiated. Concurrent with the download of software, the system checks to see if the software is a new license or a reallocation of an existing license. Only the former generates a payment to the software vendor. Treating software as an asset provides a means to accurately track both requirements and utilization of software licenses, generating cost savings to the Department from eliminating over-licensing.

The Enterprise Software Initiative is a partnership with the software supplier. Enterprise Software Agreements are negotiated with a "win-win" theme. Both parties to the agreement have the same objective: to deliver all DoD-required software licenses through the ESA. The supplier benefits from *consolidated volume purchasing, reduced cost of sales and single point of ordering and payment*. In fact, the software vendor has secure on-line access to current license status and receives automatic monthly payments for net new activity during the period. Motivated by the opportunity to gain or protect marketshare, the software vendor takes the lead in the marketing and user "buy-in" activities for ESI.

Finally, there is a robust monitoring and feedback mechanism in place for continuous process improvement. Through a combination of user feedback, the waiver process and continued industry benchmarking, ESI product managers can ensure they are meeting user software needs with the best possible terms, conditions, delivery methods and price. The feedback mechanism also helps to identify new candidates and enhancements for Enterprise Software Agreements. The DoD continues to maintain both the most favorable enterprise agreement offered by the software vendor, as well as a comprehensive suite of the most popular software.

As described above, acquiring and managing software as an asset produces remarkable benefits for the DoD - well worth the considerable time and effort required for implementation of such practices. As challenging as the program was to put in place, the effective and efficient Enterprise Software Initiative is proving to be well worth the effort.

PLAN FOR IMPLEMENTING AND MANAGING ENTERPRISE SOFTWARE AGREEMENTS WITHIN DOD

3. THE HIGH LEVEL IMPLEMENTATION PLAN

Implementing a program with such aggressive objectives in an organization with the size and complexity of DoD can seem onerous. It has taken years of fragmented software buying practices from hundreds of organizations to reach the current state of DoD software. There is no "silver bullet" to alter these practices overnight. Change is incremental and requires planning, logic and caution. ESI activities to date provide a good starting point to achieve the DoD goals of cost reduction and software control. The "Quick Hit List" proves that ESI is on the right track. Through the further implementation of best practices, DoD can achieve significant savings and improvements in service … and establish and manage the best Enterprise Software Agreements in the industry.

The Enterprise Software Initiative represents a major change in DoD's software buying practices and requires a well planned approach to its implementation. The recommended implementation approach for DoD's Enterprise Software Initiative is a *phased approach* with *continued incremental success, savings and improvements.* The implementation process is iterative and requires continual benchmarking and performance tuning. DoD should pilot and benchmark agreements with key software suppliers in product categories with identified high payback to the organization.

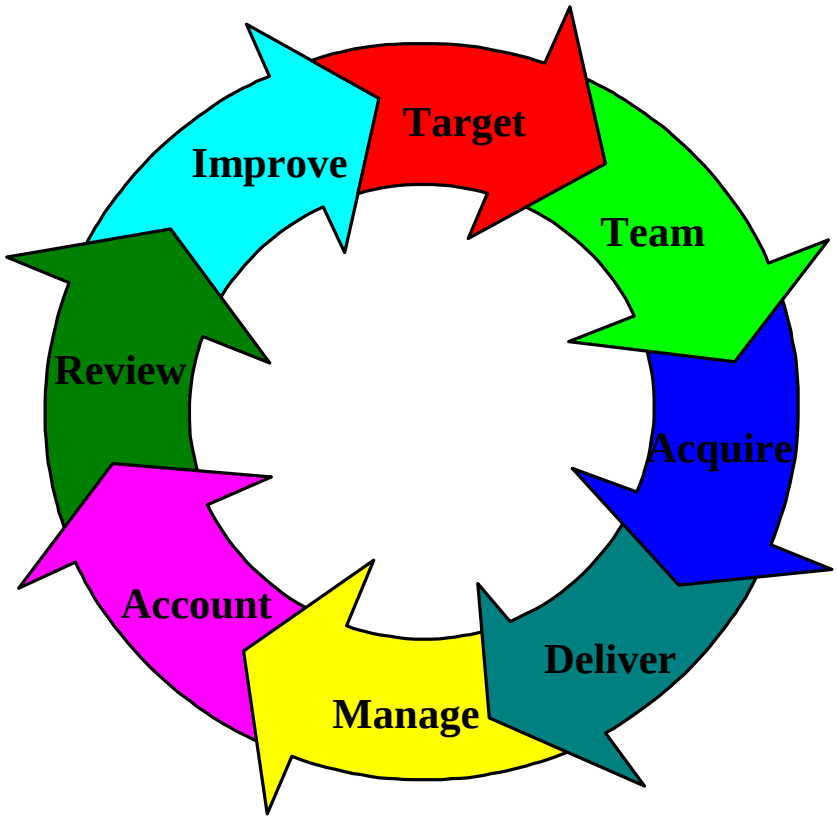

Figure 1 - Implementation is a continuous process

The initial scope of the ESI implementation should focus on core requirements for the pilot system. There is danger in trying to implement too much, too fast. Although the Department has been procuring major systems and software, the cross-department scope and the asset tracking and inventory requirements add unique challenges to this effort.

The initial focus of ESI's implementation can be categorized by the following:

1. **THE TEAM**: Building the team of experienced and skilled staff to identify, acquire, distribute and manage enterprise software.

2. **THE POLICY**: Issuing and enforcing a clear and unambiguous policy of mandatory consideration for use of the Enterprise Software Agreements within all DoD Components and contractors.

3. **THE ENTERPRISE IT CORRIDOR**: Designing and deploying an effective system infrastructure focused on ordering, delivering, tracking, billing and paying for enterprise licenses.

4. **THE ACQUISITION STRATEGY**: Establishing a sound acquisition strategy and the expert staff required to negotiate and maintain Enterprise Software Agreements with industry's best discounts and terms.

5. **THE FEEDBACK AND COMMUNICATION CHANNEL**: Creating a mechanism for feedback and communication focused on continuous improvement of the Enterprise Software Initiative.

Because the potential payoff to DoD is so large, the temptation to make sweeping policy and acquisition change is great. The time and effort it takes to plan, acquire and manage software on an enterprise basis dictates a *phased approach* to implementation. Best practice shows that the organizations that are successful with enterprise software acquisition and management initially pilot their program on a few high payback targets managed by a central organization of skilled and experienced professionals. Enterprise agreements are put in place with key software suppliers for significant cost savings to the organization. Post-award software management systems to purchase, inventory, bill and pay for enterprise software are deployed. This process is iterative, with continuous improvement and lessons learned. Successful organizations "eat the elephant one bite at a time."

The Enterprise Software Initiative should be viewed as a continually evolving program. Successful implementation of enterprise license agreements with key DoD software suppliers will result in significant savings. *However, gaining the support of DoD's diverse user population and software suppliers is a monumental task*. Without the "buy in" from these parties, the ESI will fail. Traditionally, DoD has been unable to direct mandatory service compliance. Therefore, the Enterprise Software Initiative needs to be implemented in a manner that builds on small successes to prove its ease, benefit and savings to DoD users. ESI represents a significant change to DoD's business practices and should entice participation from the DoD community through a streamlined, easy-to-use process that delivers on significant cost savings, a great "user experience," and accurate and positive control of software licenses.

The ESI also needs to gain the confidence of its software suppliers in its ability to control and manage its software licenses across the Department. To date, DoD's software suppliers have been engaged in separate sales and marketing activities within DoD Components and contractors. They have had the liberty of striking the "best deal of the moment" and approach DoD with a "divide and conquer" strategy. Each deal is treated as a new transaction without consideration of cross-department volume or aggregated requirements. Effective implementation of the Enterprise Software Initiative will aggregate DoD's immense buying power and result in a strategic partnership with industry. DoD's approach must establish a strong relationship with the software supplier. Suppliers too will benefit from an effective ESA. Consolidated DoD order volume, reduced cost of sales, increased market share, and a single point of order and payment all help the software vendor increase its profitability even with the best discounts. Both the ESI and the vendor need to have the same objective: to deliver all DoD required software licenses through the ESA.

It should be recognized that it takes time and continuous effort to change the business practice of a large organization like DoD. ESI must maintain the investment of resources, personnel and dollars to continually improve the Enterprise Software program. The Department must pursue ESI with patience, tenacity and unwavering commitment.

As with any major initiative, it is the people that will have the biggest impact on the program's success. It is imperative to compile a team of dedicated experts to carry out the mission of the Enterprise Software Initiative.

3.1 THE TEAM

To successfully implement an enterprise software agreement, it should be understood that negotiating and managing these agreements presents a difficult and demanding task. Building a cohesive team of experienced and skilled professionals to identify, acquire, distribute and manage enterprise software is critical to program success. This team should be comprised of all stakeholders in the Enterprise Software Initiative — including the Steering Committee, the Working Group, the IT Corridor Executive Agent, the Acquisition Center(s), the Users and the Software Vendor.

The suggested ESI team is comprised as follows:

Organization	Role
Steering Committee	Team of high level, cross-department executives focused on establishing the direction, priorities and funding of the Enterprise Software Initiative
Working Group	Team of cross-functional, cross-department managers handling the day-to-day activities to ensure that the stated ESI program direction is met

Table continues on next page.

Organization	Role
IT Corridor Executive Agent	Team of IT infrastructure and functional professionals dedicated to delivering and easy to use and complete software system — including ordering, inventory and asset tracking, and billing and payment
Acquisition Centers	Contracts Team with responsibility for negotiating, maintaining and managing the most favorable enterprise agreement for DoD. This includes legal support proficient in intellectual property
	Software Product Manager with expertise in the designated software category and responsible for research, market knowledge and technology, software management systems and ESI marketing
User Community	All DoD Components and contractors with requirements for software covered under the Enterprise Software Agreements. This is the customer — the source of ESI business and program feedback.
Vendor	Supplier of enterprise software and key partner in marketing, service "buy-in" and continuous program improvement

The ESI team should have clearly identified roles and responsibilities and work together to achieve the goals set forth for the program. Regularly scheduled team meetings are required to review progress and remove any impediments to success. The team must communicate openly and encourage feedback from its customers and software partners. Through the use of industry benchmarking, user interaction, and the waiver process, the ESI team will establish the feedback mechanisms required to maintain the most favorable software agreements in the industry.

The DoD must be prepared to invest in the required level of training, tools, resources and infrastructure to enable this team to meet the ESI mission. Once the team is established and the roles understood, a clear and unambiguous directive must be issued regarding the use of the ESI throughout all DoD Components and contractors.

3.2 THE POLICY

In order to ensure maximum use of the enterprise agreements and to eliminate "maverick" buying to the greatest extent possible, it is imperative for DoD to issue a clear Guidance and Policy Memorandum regarding DoD's utilization of the Enterprise Software Agreement (ESA). This policy should identify the purpose, applicability, procedures and responsibilities of the services.

Traditionally, DoD has been unable to direct mandatory service compliance. Therefore the commitment and enforcement to the policy should also come from the Service Chief Information Officers (CIOs), Procurement Executive Officers (PEOs) and acquisition officials.

A suggested policy is as follows:

> It is the policy of the DoD to reduce the total cost of software and increase management efficiencies by acquiring and managing commercially available software at the DoD enterprise level. DoD ESAs are mandatory sources for consideration by all DoD Components regardless of the acquisition source or method. DoD ESAs are mandatory sources of supply for DoD Components when a "golden disk" has been acquired.

Both DoD and its services must make it clear that it is the Department's policy to make maximum use of the agreements. Agency architectures and standards should be modified to dictate the use of the enterprise products. The policy should be communicated clearly and actions taken to ensure compliance. The Enterprise Software Agreement is *the one-stop-shop* for agencies with requirements for the software covered under these agreements.

With the idea of making it easy to do business with ESI and difficult to buy covered items outside the agreements, a *waiver process should be established* for DoD Components which have a compelling reason to procure outside this vehicle. The ESI process to acquire the enterprise products should be "the path of least resistance" and deliver on ease of use and savings. This waiver process should be incorporated into the ESI feedback mechanism to note and improve program initiatives. If someone is able to transact a better deal, then ESI agreements are not the best that industry has to offer and the ESI team can take appropriate action.

Compliance should also be made an IG special interest item, with failure to adhere to the policy noted in IG reports. The IG should provide feedback to heads of organizations that are not using the agreements and the reasons must be fully understood. Non-compliance must be noted and, if there are valid reasons, improvements should be made to the policy or program.

Additionally, the policy needs to establish a fee structure to share in the costs with the ESI Acquisition Centers. These organizations will establish and manage the joint DoD contracts and should be compensated for managing the program. Sharing in the costs and allowing a fee for service structure with these Centers will again enhance service "buy-in" and encourage innovation. To the extent practicable, fees should be invisible to the requestor

With a clear and unambiguous directive, and a reimbursement fee structure in place, the Department must focus and deliver on the infrastructure to support the ESI. Doing business with ESI should be a friendly and painless experience. The ordering, delivery and billing process must be transparent to the using agency. To this end, maximum use of Impact cards (Government credit card) will be particularly useful. The implementation of an on-line, point-and-click DoD Mall will also enhance user "buy-in" and facilitate compliance with DoD smart buying practices.

3.3 THE VIRTUAL IT MARKETPLACE

Key to successful implementation of the Enterprise Software Initiative is the deployment of integrated automated systems to order, deliver, track status, provide asset management, and bill and pay for enterprise software licenses. The technology advancements made possible by the Internet, Business-to-Business E-commerce, software management tools and commercially available procurement and asset management systems provide a proven basis for the deployment of a rich, robust ESI front-and back-office system.

Toward this goal, an IT Corridor should be established and maintained as a separate entity of the DoD Electronic Mall (EMALL). The IT Corridor concept combines state-of-the-art technology, industry best practices, and best price Information Technology (IT) products and services to create a "Virtual IT Marketplace" for the Defense customer. By focusing on IT commodity-specific products and services, the IT Corridor permits consolidation of IT requirements to realize significant Total Cost of Ownership (TCO) savings in software acquisition and maintenance. The IT Corridor provides expanded access to premier IT products and services. Products are available for ordering online through various stores of the IT Corridor thereby facilitating increased price competition. Finally, the IT Corridor leverages existing investment in technology infrastructure. Business processes are integrated with the EMALL to use established cross-catalog shopping/ordering, status reporting, and invoicing and bill payment systems. The end result is improved availability of IT products and services, and ease of purchasing through "point and click" comparison-shopping.

As the IT Corridor Executive Agent, the Department of the Navy Chief Information Officer (DON CIO) will advocate requirements on behalf of the Enterprise Software Initiative and the IT Corridor customer, and will coordinate integration of Military and Commercial IT electronic catalogs into the EMALL

Key systems requirements for ESI deployment include:

System	Desired Functionality
Ordering System	On-line, user-friendly customer interface which allows all DoD Components and Contractors to shop for and purchase enterprise software
Delivery System	A point-and-click system which automatically downloads ordered software or triggers the shipment of a CD to the user
Inventory/Asset Management System	A up-to-date software inventory system for allocation of all software licenses with relevant customer information, license count, and number of utilized and available licenses
Billing System	Invoicing and collection system to charge ordering components and collect fees for software, maintenance and service fee
Payment System	Payment mechanism to generate license reports and payment to the software vendors for net new licenses

The IT Team should approach this automation challenge with the same rigor and planning required in other major information technology programs. It is recommended that this team revisit key organizations engaged in the interview process for ESI's Best Practice report. Corporate entities, government sites and the software vendors have already tackled automation projects for distribution of enterprise software. The Department should not need to "remake the wheel."

The ideal IT infrastructure allows software required by the user to be downloaded directly into the user's machine from the DoD Mall. Where download is not possible, an overnight delivery of a CD is suggested. When the user requests the delivery of software, an order generation system charges the authorized unit for the software and the DoD software inventory is updated with all pertinent software and customer data. Concurrent with the download of software, the system checks to see if the software is a new license or a reallocation of an existing license. Only the former generates a payment to the software vendor. Treating software as an asset provides a means to accurately track requirements and utilization of software licenses, generating cost savings to the Department from eliminating over-licensing.

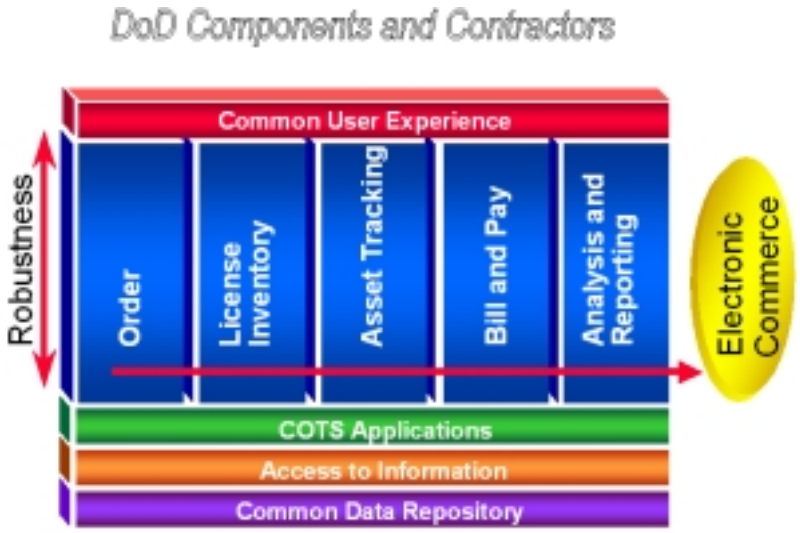

Figure 2 - The Required ESI Infra structure

Like the overall program implementation plan, the automated systems should follow a phased implementation. Baseline capabilities should be deployed first, with planned future enhancements following in a later phase. *The immediate priority for deployment is a point-and-click ordering system and an asset tracking system to maintain positive control of all software licenses.* This mandates that the selected system(s) have the ability to be deployed in a modular manner. The phased implementation approach allows the flexibility of implementing core systems immediately, with enhancements made available as the technology progresses and commercial systems become available.

In conjunction with planning and building the IT infrastructure, ESI is ready to begin its acquisition strategy. This strategy is multi-faceted — including the acquisition staffing, benchmarking, planning, negotiations, post-award management and continuous improvement.

3.4 THE ACQUISITION STRATEGY

The goal of an Enterprise Software Agreement (ESA) is to achieve the best possible industry discount, terms and conditions, and maintenance and support package for standards-compliant, commercially available software. A Volume Discount Agreement should be negotiated with key vendors within a product category. (For example, for Databases: Oracle, Informix, IBM and Sybase.) Agreements need to include all software, utilities and service required to deploy the programs within DoD Components and contractors for the lowest cost. Based on industry best practice, *it is not felt necessary to provide up-front funding* for these agreements. Estimated quantities are based on the aggregated requirements of all DoD Components and contractors.

This is the "hard stuff" and requires an expert, innovative team of professionals who thoroughly understand the software industry and have experience in negotiating software licenses and services. These individuals should be dedicated to this initiative and rewarded from program success. It is suggested that ESI consider compensating this team based on the success of its product category (or categories) and Enterprise Software Agreements. This would directly tie the Acquisition team to program success. ESI would need to develop objective performance measurements and a bonus structure for the team to reward good performance and encourage innovation.

The ESI Acquisition strategy can be broken down to the following components:

Figure 3 - The Acquisition Strategy

Acquisition represents much more than negotiating the Enterprise Software Agreements. Acquisition includes understanding the industry and market forces driving the software vendors, benchmarking the DoD ESAs to continually improve and drive deeper discounts and

efficiencies, and managing the ESAs to provide core systems that make it easy to conduct business and track the software assets.

3.4.1 Expert Staffing

It is envisioned that ESI will designate an Acquisition Center for a specific type or types of commercially available software. A key element of the acquisition implementation is the requirement for individuals with specialized knowledge and expertise. The Acquisition Center must be staffed by professionals working together to plan, negotiate and execute award-winning Enterprise Software Agreements. Responsibility for initiating and implementing these agreements should only be assigned to individuals that have developed and demonstrated a high level of skill in software acquisition and management, as well as a full understanding of the marketplace and technologies.

The ESI will need to invest in the contract, training, and product management, and legal support functions of these centers to ensure they have all the tools necessary to support the ESI for the designated acquisition's lifecycle. These costs should be reimbursed through a fee-for-service arrangement authorized by the ESI policy.

The terminology and definitions for differing licenses can change between industries and even individual software vendors. For example, a "named user" or "casual user" may have different meaning to different vendors. To this end expert intellectual property legal support is vital to ensure that the Government negotiators understand exactly what license rights they are acquiring and how the software provider expects the license to be managed. Additionally, it is essential that the acquisition team understand what level of discount and terms and conditions they should be achieving. Finally, expectations should be set that it takes between six months and two years to put an agreement in place that is acceptable to both parties.

Figure 4 - Experts in Acquisition

The Contract Team includes the contracting and legal staff required to negotiate and maintain the best Enterprise Software Agreement. Working in conjunction with the Software Product Manager (SPM), this team develops the acquisition and negotiation plan and conducts the necessary research and benchmarking required to establish leadership in Enterprise Software Agreements. The team negotiates the agreement and maintains it at the most favorable state. SPMs should attempt to standardize terms and conditions in Enterprise Software Agreements to "keep it simple" and to allow meaningful comparisons across ESAs.

The Acquisition Centers should also assign a Software Product Manager to each class of enterprise software for which they are responsible. These SPMs are the resident experts within DoD for these classes of software. Through understanding market forces, positions and pressures, the SPM can help guide the negotiations with a "win-win" theme. Knowing the software vendor's motivation and business practices helps to structure an agreement that is favorable to both parties. Additionally, the SPM will maintain an accurate software inventory of ESA software licenses for assignment of the asset to the ordering DoD Component or contractor.

The ESI will have to invest in establishing appropriate training regimens for the contracting and product managers to help ensure world-class enterprise agreements and management. The ESI Acquisition team needs to remain razor-edge current in its knowledge of industry technology and competing software agreements.

3.4.2. Benchmark and Planning

Webster defines benchmark as "a reference point serving as a standard for comparing or judging other things." In an enterprise-wide software license, a benchmark provides the information (e.g., level of discounts, special terms and conditions, etc.) necessary to set a standard for negotiation objectives and to judge success of enterprise agreements.

The importance of continual benchmarking and comparison cannot be overstated. *Benchmarking is the primary tool to evaluate whether DoD has reached its goal* of the most favorable agreement with the best discounts and terms. Benchmarking is also a *feedback mechanism* for continuous ESA improvements.

The ESI Acquisition team must "keep its finger on the pulse" of the software industry. They must remain vigilant in their tracking and communications of software agreements with other large organizations. Using data gathered from DoD, other government agencies and comparable corporate entities (e.g., General Motors), the ESI Acquisition team can accurately measure and compare the DoD Enterprise Software Agreements with other industry transactions. For example, the team can build volume discount curves to arm the target selection process as well as to provide the basis for evaluation/negotiation process.

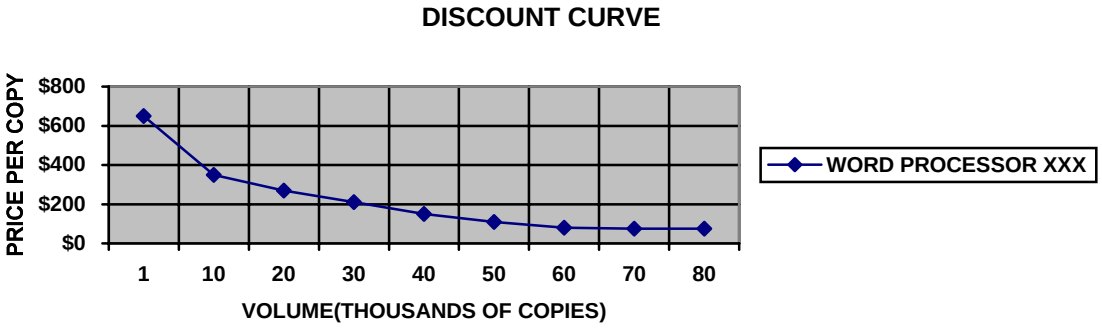

Figure 5 - Benchmarking is critical

Similar curves can be built for varying other terms and conditions (e.g., central ordering, central billing, support options, license delivery options, etc.). Clearly understanding these elements will not only enhance the immediate selection process, but will also provide a basis for future benchmarking and identification of additional saving areas. This exercise will identify the software vendor's business practices and provide the understanding for the vendor's mode of operation.

The Acquisition Team should remain in constant communication with industry and other government agencies, throughout all phases of ESI, to track other negotiations and agreements with the software vendor. (Organizations involved in the best practice interview process are a good source of information.) The competition for the "best deal" is fierce — every organization wants a lower price with better terms. However, no organization has the size and muscle of the Department of Defense. DoD's ESA should remain the most favorable offered by the software company. *Benchmarking provides a clear understanding of what is possible and what is happening*. With that knowledge, the ESI team can proceed with the planning of the acquisition.

The ESI should spend its time and effort on the software packages with the *highest payback and the greatest potential for savings*. Activities that successfully manage software at the enterprise level use two metrics to determine which packages to manage: the number of installed packages and the cost per package. Another method of target selection is the 80/20 rule: if 80% of the organization requires this package, it is a target for an enterprise agreement. Using these approaches, widely used products such as operating systems, application packages, and communications utilities are natural targets for enterprise acquisition and management. The ESI's "Quick Hit List" is a good start. Once the process is perfected, it can be deployed to include lower priority targets.

ESI should consider the *acquisition life cycle* when crafting enterprise agreements. Life cycle issues include the product mix, product maintenance services, inclusion of the installed base in the contract, and the management aspects of the agreement. With the goal of acquiring all DoD licenses and services from the ESA, the agreement should include all programs required to deploy this license and the core support necessary for the software to operate and maintain currency (e.g., technical support and upgrades). Technical support and upgrade fees generally represent an annual, recurring fee that can be up to 25 percent of the initial software license. The ESI should thoroughly understand the technical support options, and benchmark these industry offerings to control the software support fees. Many software vendors offer differing

levels of software support (e.g., business hours only, 7x24, centralized support, etc.). The Acquisition team needs to fully understand its customers' support requirements and negotiate a sound maintenance approach for its software inventory. The agreement should also include existing DoD licenses in maintenance agreements. These licenses should be grandfathered in to further aggregate DoD requirements.

Finally, it is not enough to negotiate an agreement and consider the task complete. If software is to be managed as an asset, post-award issues dealing with the distribution, maintenance and accounting for software licenses must be addressed in the Enterprise Software Agreement. Consideration should be given to methods of delivery, positive license control, and other management issues.

With all that said, it should be noted that while it is important to consider life cycle issues, it is *critical to simplify the agreement.* Multiple objectives and incentives can cancel each other out and create a door of opportunity for contractors to increase profit margins at the expense of the end users. As evidence, many enterprise deals contain ancillary services and products offered by the provider to "sweeten the deal." While some of these services may be attractive, they complicate the agreement, mask the software's true cost, and make "apple to apple" comparisons across a product category difficult. If these offerings are optional, the ESI should consider placing these and other support services on an alternative procurement vehicle.

3.4.3 Tough Negotiations

There is but one way to describe the posture and attitude required during Enterprise Software Agreement negotiations: Be demanding! Remember, the main goal of the ESI is to dramatically reduce the software's life cycle cost. DoD represents the single largest customer to most software vendors. ESI should demand the absolute best pricing and terms and conditions. Negotiation objectives should be clear from industry benchmarking. Be tough and demand that these objectives be met.

DoD negotiators should structure a Volume Purchase Agreement with software vendors with *no up-front funding.* Given expectations from past government agreements, it is clear that industry expects some level of up-front funding from their government contracts. This expectation may result from a disbelief in DoD's abilities to control software users. However, it is also clear from ESI's Best Practices research that full funding for the estimated requirements is not required to achieve significant discounts. *DoD should clearly understand that up-front funding does not necessarily control the discount to be achieved.* Perhaps this best practice for ESI could be implemented by guaranteeing a known number of licenses (based on validated needs) for the front end, with an ID/IQ type arrangement for the rest of the agreement. The Department could fund the guaranteed portion by either aggregating individual program requirements, or use stock funds if there is sufficient confidence in the estimated number of licenses.

Standardizing on terms and conditions is required to baseline agreements. Starting with a core set of standard terms and conditions and modifying them to accommodate unique requirements is the best-bet approach. It should be noted that liability, ownership and

accountability issues are among the top concerns of the software industry. Special attention should be paid to these terms and a compromise position formulated.

It is important for the software provider to understand the goals and mechanisms of the ESI. Negotiations should not present a "we versus them" posture. Software vendors need to feel confident that they will benefit from executing an ESA with the Department and that DoD can control and accurately track software licenses. The software vendor should be a partner in this effort whose opinion is heard and respected.

With several vendor contracts in each product category, DoD *will maintain competition throughout the life cycle of the Enterprise Software Agreement*. Competition is a wonderful thing and, by maintaining it, ESI will inspire vendor cooperation and "buy in."

The ESI team should stand firm on their requirements for an Enterprise Software Agreement. Nothing short of a DoD-wide mandatory agreement is acceptable. Should the software vendor refuse to cooperate, or refer back to GSA as the preferred agreement, the ESI Acquisition team should be prepared to walk, holding all DoD orders from the vendor. Once the vendor realizes how serious DoD is in its goal to procure and manage licenses on an enterprise basis, the vendor will return to the negotiation table.

3.4.4 Post-Award Management

Let the fun begin! Once the best agreements are in place, it is up to the Software Product Manager (SPM) team to effectively sell, track, and account for all enterprise licenses. This is a tall order and represents a major shift from the current DoD software management practices.

The Software Product Manager is *the face to the customer* — the expert in that software category and the Enterprise Software Agreement. The majority of software activities will come through the SPM's office. Customer interactions include the ordering, delivery, inventory, allocation and payment for required packages. With the support of the Enterprise IT Corridor, innovative and user-friendly systems need to be put in place to provide the users with the best possible ESI experience, and ease the management burdens for the SPM.

Marketing of the ESA vehicle is key to user "buy in." It is envisioned that the SPM will coordinate program marketing with the software vendor. With competition in place throughout contract life, the vendor will be motivated to increase the use of its ESA and increase its market share within DoD. In addition to marketing the product, the SPM will need to market the ESA concept, process and success.

It is important to make all DoD Components and contractors aware of and comfortable with the ESI process. All interactions with ESI need to be friendly and painless for the customer. It is the SPM's responsibility to coordinate the process and provide input into the systems to ensure this goal is met.

To encourage use of the agreements and adherence to the ESI policy, the program should offer an on-line store for enterprise software shopping and comparison. This store should facilitate head-to-head software comparison, including software capabilities, terms and pricing. The ordering and delivery of the software should also be available from this site. A

point-and-click interface should simplify this process and allow DoD to capture all pertinent customer information for its software inventory from a single point with no redundant information required. Authorized orders should be fulfilled immediately with the download of the required software.

Transparent to the user, the ESI systems will check availability of software licenses and allocate the appropriate number to the approved requesting agency. This will be a positive license control — one that enables DoD and the software vendor to have full and accurate accounting of how many licenses are in use and who is using them. The order will be transferred with an approved funding citation to simplify the billing and collection processes.

The software vendor should have secure access to ordering and customer information for its products. At a minimum, the SPM will generate an order report and payment for net new activity with the vendor on a monthly basis. Ideally, the software vendor would have on-line, real-time access. This would allow the vendor to follow up with new customers and orders, improving the customer service aspects of the ESI.

The SPM should monitor all contract interactions for improvements. As the expert in the specified product category, it will be the SPM's responsibility to suggest enhancements to existing ESAs and to provide the business case for new ESA candidates. There should be a number of feedback mechanisms in place to provide communication and suggestions.

3.5 THE FEEDBACK AND COMMUNICATION CHANNEL

To achieve significant cost savings from the ESI, the Department needs to continually improve and enhance its program. In a market that moves as fast as the technology market does, there are constant developments and opportunities for new and improved ways of conducting an enterprise software business.

Communication and feedback mechanisms need to be put in place to constantly monitor and analyze the program's success. These include, but are not limited to the following:

- Clear program communication
- Industry benchmarking
- The ESI waiver process
- Feedback and suggestions from ESI customers and vendors
- New industry developments
- Performance of the Acquisition team

The ESI can only be successful if the DoD community understands the purpose and benefits of the program. It is important to clearly communicate the program goals, procedures and savings to all DoD Components and contractors. An open communication practice is tied to the benchmarking practices and is used to continually improve the effectiveness of enterprise agreements. The software vendor can greatly assist in "spreading the word."

Benchmark, benchmark, benchmark! This is the best way to ensure that the DoD Enterprise Software Agreements are the best that industry has to offer. By continually comparing and contrasting DoD's agreements to others, both commercial and government, the ESI team can identify areas for improvements and increased cost savings.

By issuing and enforcing a policy of mandatory consideration, the Department will have a built-in feedback mechanism. The waiver policy will identify valid opportunities from those DoD Components who can "get a better deal" than those offered through ESI. The ESI team can then take action with the software vendor to incorporate those offerings into the Enterprise Software Agreement.

The customer and the vendor offer a constant opportunity for feedback and improvement. By listening closely to these two partners, the ESI can identify areas of improvement in their operations and offerings. It is suggested that the SPMs compile customer and industry suggestions for review at ESI status meetings.

It is critical for ESI to keep up with evolving standards, products, and delivery methods. The SPM should constantly review the state of the marketplace to identify new standards, innovative products, and current methods of delivering enterprise software. For example, this includes new methods of acquiring functionality without actually acquiring licenses, such as using a seat management approach or application hosting. With both of these approaches, the customer never actually procures the software license.

Performance metrics should be developed to accurately judge the success of the program. These metrics logically result from the benchmarking of the Enterprise Software Agreements. All of these communication and feedback mechanisms — if paid attention to — will identify impediments to success and suggest ways to improve the ESI program.

3.6 SUMMARY

The Enterprise Software Initiative is an exciting program that offers the possibility of immense savings and benefits to the Department of Defense. Implementing a program of this nature in an organization as complex as DoD is a challenging exercise that should be approached in an organized, planned and incremental way.

Successful implementation of the program will dramatically reduce the cost of software licenses and maintenance to the Department. This will be achieved by reducing the initial acquisition cost of the licenses and ensuring the accurate accounting and re-issuance of these assets. Both objectives have the potential of providing significant savings and improving overall asset management.

As discussed in this plan, the Department should focus the initial implementation of this program in five areas:

1. **THE TEAM**: Building the team of experienced and skilled staff to identify, acquire, distribute and manage enterprise software.

2. **THE POLICY**: Issuing and enforcing a clear and unambiguous policy of mandatory consideration for use of the Enterprise Software Agreements within all DoD Components and contractors.

3. **THE ENTERPRISE IT CORRIDOR**: Designing and deploying an effective system infrastructure focused on ordering, delivering, tracking, billing for and paying for enterprise licenses.

4. **THE ACQUISITION STRATEGY**: Establishing a sound acquisition strategy and the expert staff required to negotiate and maintain Enterprise Software Agreements with industry's best discounts and terms.

5. **THE FEEDBACK AND COMMUNICATION CHANNEL**: Creating a mechanism for feedback and communication focused on continuous improvement of the Enterprise Software Initiative.

DoD is on the right track with its commitment to the Enterprise Software Initiative. The Department should continue investing in the resources, personnel and systems needed to effectively deploy this program to all DoD Components and contractors. As the Department moves from paper planning to the implementation phase, it will be necessary to increase staffing and other resources to ensure the program success.